

**AIRPOWER AS A TOOL OF FOREIGN POLICY  
TWO CASE STUDIES OF AIRPOWER'S USE:  
THE PHILIPPINES IN 1941 AND BERLIN IN 1948**

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## **ABSTRACT**

The purpose of this work is to provide insight for the operational air planner who must determine the circumstances under which airpower can be an effective tool of foreign policy. With insight into this issue, both the air strategist and diplomat may be better equipped to evaluate the appropriateness of using airpower in international relations.

To accomplish this purpose, this paper provides an analysis of two specific cases in which United States political leadership called upon airpower to further foreign policy goals without resorting to war. The first case study centers around the decision to place B-17s on the Philippine Islands in October of 1941. The second case study focuses on the use of airpower during the Berlin Blockade of 1948-1949. Both case studies use a framework for analysis that examines the interrelationships between political, material, and military influences on the ultimate operational air plan. Future students who may wish to pursue expanded studies of these or other cases may capitalize on this framework to pursue those studies.

## **ABOUT THE AUTHOR**

Major Janet A. Therianos graduated from the US Air Force Academy in 1980 with a Bachelor of Science in Aeronautical Engineering. She earned her Masters in Business Administration from Louisiana Technical University in 1986. Following pilot training, Major Therianos flew KC-135s at Fairchild Air Force Base (AFB), Washington and KC-10s at Barksdale AFB, Louisiana. In 1986 she was selected for an Air Staff Training Assignment at the Pentagon in Washington D.C. where she worked in Air Force Plans. Following her assignment to D.C., Major Therianos spent three and a half years at March AFB, CA., flying worldwide missions in the KC-10. While there she held the positions of aircraft commander, flight commander, combat crew training instructor pilot, flight examiner, assistant chief of the 22nd Air Refueling Wing Standardization and Evaluation Division, and Chief of KC-10 Operations for Fifteenth Air Force. In 1991 she attended Air Command and Staff College, followed by a year at the School of Advanced Airpower Studies. Major Therianos is currently assigned to Air Combat Command Headquarters, Langley AFB, Va. She is married to Captain Jim D. Wallace, USMC.

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## CHAPTER ONE

*Our great Nation stands at a crossroads in history. We have entered a world radically transformed in the last four years. We live in an interdependent world in which our hopes for peace and prosperity at home are increasingly linked to the success of our policies abroad.*

*President George Bush*  
January 1993

### **INTRODUCTION**

*The United States is now the world's only military superpower. Our nation not only stands at a crossroads in history, but "the collapse of the Soviet Union and our collective victory in the Cold War have fundamentally changed the strategic environment."<sup>1</sup> As a result, constraints imposed for fear of nuclear escalation between the former Soviet Union and the United States have all but disappeared. With the fear of nuclear escalation as a result of superpower confrontation diminished, the role of military capability in foreign policy is reemerging as a significant tool of foreign policy. Thus, today's geopolitics permit more flexible consideration of the use of force, a trend reinforced by contemporary technological capabilities. Airpower, which many consider to be the leading edge of military capability, is significant in the influence of military might in foreign policy. Airpower's qualities of responsiveness, flexibility, range, stealth, intelligence gathering capability, and lethality make it attractive to policy makers. If airpower is to engage in a leading role, we must determine the circumstances under which airpower can be an effective tool of foreign policy. Answering this question is the central burden of this study. With insight into this issue, both the air strategist and the diplomat should become better equipped to evaluate the appropriateness of airpower in international relations.*

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<sup>1</sup>George Bush, National Security Strategy of the United States, January 1993 (Washington D.C.: U.S. Government Printing Office, 1993), 1.

To answer the question requires a brief discussion of definitions, concepts, and a framework for analysis, which will be presented in the rest of this chapter. Next, the study examines two uses of airpower in foreign policy from a historical perspective. Chapter Two analyzes the use of B-17s in U.S. diplomatic maneuvers shortly before the Japanese attack on Pearl Harbor. It seeks to answer three specific questions. How was airpower amalgamated with foreign policy by stationing B-17s in the Philippines in late 1941? How well did this action support national security objectives? What were the particular circumstance of airpower employment? Chapter Three moves ahead to June 1948 and asks the same questions in a new environment; the Blockade of Berlin. In the seven years since 1941 the world had changed dramatically. World War II was over, but the Cold War was just beginning. The Berlin Blockade was the first major diplomatic challenge in the Cold War era. Chapter Four searches for common threads and historical insights by offering a comparison of the two studies, conclusions and implications.

## **DEFINITIONS AND CONCEPTS**

A first step is needed to explain what “airpower” is and what “foreign policy” means. Major General William ‘Billy’ Mitchell, an air commander in World War I and an outspoken proponent for exploiting the airplane’s potential, defined airpower as: “. . . the ability to do something in the air. It consists of transporting all sorts of things by aircraft from one place to another, and as air covers the whole world there is no place that is immune from influence by aircraft.”<sup>2</sup> General Henry H. Arnold, as the commander of the Army Air Forces, claimed: “Air power is not composed alone of the war making components of aviation. It is the total aviation activity - civilian and military, commercial and private, potential as well as existing.”<sup>3</sup> A more recent definition put

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<sup>2</sup>Maj Gen William Mitchell, Winged Defense: The Development and Possibilities of Modern Air Power - Economic and Military (Port Washington, N.Y.: Kennikat Press, first published in 1925, reissued in 1971), xii.

<sup>3</sup>Eugene M. Emme, The Impact of Air Power: National Security and World Politics (Princeton, N. J.: D. Van Nostrand Co., Inc., 1959), 305.

forth in Air Force Manual 1-1 states that “*Aerospace power grows out of the ability to use a platform operating in or passing through the aerospace environment for military purposes.*”<sup>4</sup> Dr. Harold R. Winton, Professor of Military History and Theory in the School of Advanced Airpower Studies, defines airpower as “ . . . the use of, or the denial of the use of the air for the purpose of obtaining military advantage.”<sup>5</sup> Denial of the use of the air as well as the positive use of the air are critical to the concept of airpower. Also critical is the concept that connects military capability as an instrument in foreign policy. Thus, a synthesis of the above definitions will be used to define ‘airpower’ for the purpose of this thesis. Airpower is the ability to use a platform, or deny the use of a platform with our own assets, operating in or passing through the aerospace medium for military or foreign policy purposes .

What is meant by ‘foreign policy’? Foreign policy is the interaction between nations concerned generally with international political, economic, scientific, cultural, and legal relationships.<sup>6</sup> There is an overlap of foreign policy with national security policy. National security policy focuses primarily on the specific features of military

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<sup>4</sup>Air Force Manual 1-1, Vol. 1, "Basic Aerospace Doctrine of the United States Air Force" (Washington D.C.: U.S. Government Printing Office, November 1991), 5. The terms 'airpower' and 'aerospace power' are one and the same for the purposes of this paper. Both terms refer to the environment that consists of the entire expanse above the earth's surface. For a comprehensive discussion of the concept of 'airpower', see Group Captain A G B Vallance, RAF, ed., Air Power Doctrine (United Kingdom: Crown Copyright, 1990). Group Captain Vallance provides a comprehensive discussion of 'The Conceptual Structure of Air Power" in Chapter One of his book. It is important to note that airpower, like land and sea power, has distinct and specific characteristics. Airpower can usually project force faster, further, and complete it's mission quicker than can surface or submarine forces.

<sup>5</sup>Harold R.Winton, "A Black Hole in the Wild Blue Yonder: The Need for a Comprehensive Theory of Air Power," Air Power History 39, no. 4, (Winter 1992): 32-42.

<sup>6</sup>Amos A. Jordan, et. al., American National Security: Policy and Process, 3d ed., (Baltimore: The John Hopkins University Press, 1989), 3-4.

policy and the domestic politics of defense forces and budgets.<sup>7</sup> It is this overlap of foreign policy and national security strategy where the political use of military capability normally occurs. “A political use of armed force occurs when physical actions are taken by one or more components of the uniformed military services as part of a deliberate attempt by the national authorities to influence . . . specific behavior of individuals in another nation without engaging in a continuing contest of violence.”<sup>8</sup> This is the relationship between airpower and foreign policy for the purposes of this work.

## **FRAMEWORK FOR ANALYSIS**

To discover how airpower and foreign policy relate to each other requires a systematic examination of their interaction. To that end this study will ask the following questions of each case:

1. How was the military objective translated into a specific mission for airpower?
2. How was airpower employed?
3. What conditions influenced airpower’s employment?
4. How much did airpower contribute to accomplishing the military and political objective?
5. What aspects of the situation were most significant in influencing the outcome?

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<sup>7</sup>Ibid., 4. There are many facets concerning the overlap of foreign policy with national security policy. Significant in the overlap is alliance politics and coercive diplomacy. Since the focus of this thesis is an analysis of historical cases studies, a discussion of coercive diplomacy, compellence, deterrence, and other political science perspectives are beyond the scope of this paper. However, these concepts play an integral part in the application of foreign policy and national security strategy. For further discussion on these topics, consult Amos A. Jordan, American National Security: Policy and Process (The John Hopkins Universiy Press, 1989), Alexander George's The Limits of Coercive Diplomacy (Little, Brown and Company 1971), and Thomas C. Shelling's Arms and Influence (Yale University Press, 1966).

<sup>8</sup>Barry M Blechman and Stephen S. Kaplan, Force Without War: U.S. Armed Forces as a Political Instrument (Washington D.C.: The Brookings Institute, 1978), 12.

This framework provides a systematic methodology for analyzing under what circumstances airpower can be an effective tool of foreign policy. The following is an amplification of the first five questions. Questions six and seven need no elaboration.

*What was the political objective and how was it translated into a military objective?*

The lack of a clearly stated political objective which can be translated into a coherent military objective can undermine the execution of foreign policy. The Korean War, the Bay of Pigs and Vietnam are three examples. In contrast, the outcome of the Gulf War reflects the success of deliniating clear political objectives and translating them into equally clear military objectives. The question ‘what was the political objective and how was it translated into a military objective?’ specifically searches for clearly defined and logically linked political and military objectives in each of the cases studied.

A pivotal relationship between defining and understanding the political objective and translating it into a military objective is key for success or failure of an air plan. Knowing the political objective is important for two reasons. First, a political objective influences the directions taken by military leadership. It is the destination at which the military must arrive. If this destination is not articulated, it is impossible to determine if it has been achieved. Secondly, it is important to know the political objective in order to determine the feasibility of using the military to achieve it. If the political objective is beyond the means of military capability, it will not be achieved by using the military. An example is the Cuban Missle Crisis. An option considered by the United States was a surprise air attack that used precision bombing to eliminate missle installations. However, the commander of the Tactical Air Command told President Kennedy that he could not be “absolutely certain of destroying all the missles sites and nuclear weapons

with a surprise attack.”<sup>9</sup> Since Kennedy required near-absolute assurance of destruction to justify the risk of pre-emptive strikes, he chose to forgo this option.

Determining a military course of action should only come after a political objective is defined. At this point, military commanders can identify a specific military mission. For these reasons, it is important to know what the political objective is and how it can be translated into a military objective.

*How was the military objective turned into a specific mission for airpower and how was airpower employed?*

For airpower to be effective, planners must be able to translate the military objective into a specific airpower mission. At the operational level, this involves integrating doctrine, situation analysis, and airpower systems to achieve the objective. An example is World War II. The United States Army Air Forces used the doctrine of massive, daylight, high-altitude, precision bombing. This doctrine was combined with an analysis of German economic vital centers. Strategic air forces were directed against Germany’s industry in support of the political objective of unconditional surrender. This paper analyzes how this process took place under conditions of more limited foreign policy objectives.

*What conditions influenced airpower’s employment?*

A number of factors influence airpower’s employment. There are environmental conditions such as geography, distance, weather, population, natural and economic resources. Enemy capabilities, base locations, force size, crew training, logistics, and

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<sup>9</sup>Scrivner, John H. Jr., A Quarter Century of Air Power: Studies in the Employment of Air Power 1947-1972 (Maxwell Air Force Base, Alabama: Air

command, control, communication, and intelligence capabilities are other conditions that influence airpower. Political conditions are also manifest in the formulation of constraints and restraints. The dynamic interaction of the above conditions will significantly influence the outcome of airpower's use.

### **SUMMARY**

There seems to be a growing reliance today on the use of the military as an instrument of foreign policy. There are several reasons: the constraints imposed by the prospects of a superpower confrontation are fading with the dissolution of the former Soviet Union; the international community looks to the United States for leadership; and technological advances allow for the application of military might across a broader spectrum than before. In such an atmosphere, airpower may be called upon to play a significant role as an instrument of foreign policy. For this reason it is useful to examine the circumstances under which airpower can be used effectively in foreign policy.

## CHAPTER TWO

### AIRPOWER IN THE PHILIPPINES

Fort McKinley, P.I.

*Just heard the Japs bombed Pearl Harbor. Looks Bad!  
Well, it's here! Word just came in that Baguio and Clark  
Field have been bombed,--Clark almost wiped out,--and here we  
sit with no equipment.  
Why didn't they send more planes to the Philippines? They  
knew this was coming.*

From the war diary of Lt. Roland R. Birnn,  
a young Army Air Forces aviator assigned to  
the Philippines shortly before Pearl Harbor.

1941 was a year of heated debate among the political leaders of the United States. At issue was the conduct of foreign relations while war was being waged all over the globe. The political leadership agreed there was a need to ensure the country's national defense. The question was 'how?' President Roosevelt wanted to direct the country's efforts toward joining military power to national policy. His policy was to avert war, but if that failed, to be prepared to fight. In other words, Roosevelt wanted to deter aggressors through a show of force. This was especially true in the Far East. The show of force was realized by sending the U.S. Fleet to Pearl Harbor, extending naval patrols, and reinforcing ground and air units in the Philippines. Reinforcing air units in the Philippines is the focus of this chapter.

As the threat of Japanese aggression against the U.S. and its potential ally Great Britain became more apparent, three factors converged with respect to keeping Japan in line. The first idea was that Japan was susceptible to aerial intimidation. The Spanish Civil War and Munich had recently shown that the potency of air raids on cities lay more

in its threat than its actual use. Airplanes, especially the bomber, could be used to inflict psychological terror, and hopefully political intimidation. Second was Roosevelt's decision in July to defend and reinforce the Philippines. He did this against the advice of General George C. Marshall, Army Chief of Staff, and Admiral Harold R. Stark, Chief of Naval Operations. Up to this time, War Department plans had assumed that the Philippines were indefensible.<sup>10</sup> Roosevelt's decision assumed otherwise. A final factor was Roosevelt's infatuation with airpower. In November, 1938, Roosevelt ordered American plant capacity to produce 10,000 combat airplanes a year. In May, 1940, during the German *blitz of France*, Roosevelt stepped up the order to 50,000 airplanes a year.<sup>11</sup> These three notions brought the marriage of the Philippine Islands and airpower to center stage for foreign policy in the Far East. President Roosevelt decided to use airpower as one of his tools to conduct foreign policy. He wanted to deter Japan from pushing south in a war of conquest against the Dutch East Indies and British possessions in the Far East. This chapter assesses the dynamics and consequences of that decision.

### **PRE PEARL HARBOR IN CONTEXT**

Tensions in the conduct of U.S. foreign policy had been growing for a decade. Secretary of State Cordell Hull summarized the growing challenges in an address to the Committee on Foreign Affairs on January 15, 1941: In the Far East in 1931 Japanese forceful occupation of Manchuria violated provisions of the Nine Power Treaty and the Kellogg-Briand Pact. In December 1934 Japan gave notice of its intention to terminate the Washington Naval Treaty. Subsequently Japan intensified construction of armaments while extending domination over China. In 1937, Japan's armed forces embarked upon major military operations against China. Japanese leaders openly declared their

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<sup>10</sup>Kent R. Greenfield,  
American Strategy in World War II: A Reconsideration (Baltimore: The John Hopkins Press, 1963), 53.

<sup>11</sup>Ibid.

determination to establish a dominant position in the western Pacific. Secretary of State Hull concluded,

It should be manifest to every person that such a program for the subjugation and ruthless exploitation by one country of nearly one-half of the population of the world is a matter of immense significance, importance and concern to every other nation wherever located.<sup>12</sup>

Hull's statement indicates heightened concern for events in the Far East, but these remarks must be seen in the context of the overall strategic view of "Germany first."<sup>13</sup>

On July 26, 1941, General Douglas MacArthur, U.S. Army, Retired, who had been serving in the Philippines as Field Marshal of the Philippine Army, was recalled to active duty and given command of the United States Army Forces in the Far East (USAFFE). On October 3, 1941, at MacArthur's request, Major General Lewis H. Brereton, U.S. Army Air Force, was ordered to command the Far East Air Forces.<sup>14</sup>

Brereton commented in his diary,

I spent some time with General Arnold talking over the situation [in the Philippines]. The ultimate air force contemplated for the defense of the Philippines was approximately four Bombardment Groups, four Fighter Groups, the necessary air warning installations, and various associated air and ground units. . . .<sup>15</sup>

Brereton continues, "It was the hope of our government that the presence of a powerful air force in the Philippines, in addition to a well trained Army, would serve as a strong argument to enforce the American viewpoint on Japan."<sup>16</sup> Brereton understood the deterrent mission of the American Air Corps in the Far East. He also understood the inadequacies of the air arm in the Philippines and the difficulties of strengthening it. As

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<sup>12</sup>Cordell Hull, Secretary of State, before the Committee on Foreign Affairs, January 15, 1941.

Appendix to the Congressional Record, A128.

<sup>13</sup>Greenfield, 5.

<sup>14</sup>Lewis H. Brereton,

The Brereton Diaries (New York: William Morrow and Company, 1946), 5.

<sup>15</sup>Ibid., 6.

<sup>16</sup>Ibid., 11.

he noted in his diary on 5 and 6 October 1941, “Airplanes, airfields, pilots, and all the things needed to run an air force were practically nonexistent in the Philippines. . . . We were definitely at third-rate air power.”<sup>17</sup> Brereton expressed his concerns of rushing bombers to the Philippines without the proper equipment, facilities, and personnel to both Generals Arnold and Marshall. The political decision had, however, already been made to build up the heavy bomber force and associated requirements as quickly as possible. It was the opinion of many in the War Department and the administration that if hostilities occurred, they would not begin before the spring of 1942.<sup>18</sup> By this time, Philippine defenses would hopefully be ready. Despite obvious shortcomings, a combination of political and military opinion made airpower in the Philippines a key focus in Far Eastern diplomacy.

### **POLITICAL AND MILITARY OBJECTIVE**

By October 1941, American - Japanese relations had been in a state of crisis for several months. Political and military leaders began to suspect that it was merely a matter of time before war would begin. The U.S. needed to buy time to convince the Japanese that it was not in their best interest to attack. The longer the U.S. could delay conflict, the longer America had to build up its military might. While dealing with the German threat still had top priority, there was grave concern over developments in the Pacific. In his testimony before Congress during the Pearl Harbor hearings of 1946, Former Secretary of State Hull stated,

It became clear . . . in October [1941] . . . that the Japanese had decided to strike in their own time unless this government should be willing to yield abjectly to Japanese terms. I constantly discussed with the President the question of gaining

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<sup>17</sup>Ibid., 5-7.

<sup>18</sup>Louis Morton,

United States Army in World War II: The War in the Pacific (Washington D.C.: Office of the Chief of Military History, Department of the Army, 1962), 99.

as much time as possible and we had the subject very much in mind throughout the conversations with the Japanese.<sup>19</sup>

General Marshall also recognized the impending danger of Japanese attack. In a memorandum for the President in October, 1941, Marshall outlined basic considerations and requirements with respect to the military situation. According to Marshall, the Army saw United States national policy covering four areas: 1.) Defense of Western Hemisphere, 2.) Preservation of war effort of Britain, Russia and associated powers, 3.) Curbing Japanese aggression, and, 4.) Eventual defeat of Germany. With regard to the Western Pacific Theater, Marshall told Roosevelt that the following was required: "Rush build-up of air power to Philippines, together with small increases in modern ground army equipment and personnel to restrain Japan from advances into Malaysia or Eastern Siberia."<sup>20</sup>

Since the end of World War I, some military planners and politicians believed that the Philippine Islands were indefensible and, in fact, a military liability. Their view was based on such factors as the development of airpower; Japan's possession of the Mandates; and their consequent control of the lines of communication across the Pacific. Others recognized the strategic importance of the Islands. A dilemma between U.S. commitment to the Philippines and the forces it was able to commit continually bedeviled military planners.<sup>21</sup> By early 1941 though, the increasing possibility of Japanese aggression against the U.S. or the Dutch East Indies influenced a change in U.S. military strategy in the Far East. War planners and politicians alike decided that the defense of the Philippines was vital, and began a significant effort to reinforce the Islands.<sup>22</sup>

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<sup>19</sup>Seventyninth Congress, Pearl Harbor Attack Hearings (Washington D.C.: United States Government Printing Office, 1946), part 11, 5384.

<sup>20</sup>Ibid., part 15, 1636.

<sup>21</sup>Dr. Louis Morton, American and Allied Strategy in the Far East, Military Review, 29, no. 9 (December 1949): 24. and United States Army in World War II: The War in the Pacific, 1-44.

<sup>22</sup>Morton, United States Army in W

The recognition that Japan was operating on its own timetable, Marshall's suggestion to the president to rush air units to the Philippines, and the revision of war plans focusing on a defensive strategy in the Western Pacific had a significant impact on Army Air Force Headquarters. According to Air Force official historians, AAF Headquarters felt that a striking force of heavy bombers would be a necessary part of any attempt to guarantee the security of the Philippines, and there was a feeling among War Department officials that the presence of such a force would 'act as a threat to keep Japan in line.'<sup>23</sup>

The opinions of MacArthur and Secretary of War, Henry L. Stimson gave added merit to this concept. In the Philippines, MacArthur believed the Philippines were not indefensible, but merely inadequately defended.<sup>24</sup> Meanwhile, in the U.S. in October 1940, Stimson summed up his opinions in a memorandum to Roosevelt:

. . . [Japan has] historically shown that when the United States indicates by clear language and bold actions that she intends to carry out clear and affirmative policy in the Far East, Japan will yield to that policy. . .<sup>25</sup>

Stimson's memorandum may be indicative of a general tendency of American political and military leaders to underestimate Japanese political desperation and military capability.

In a letter to Roosevelt on September 22, 1941 concerning aircraft production and the conceptual bomber force to be sent to the Far East, Stimson, attached a document

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orld War II: The War in the Pacific, 1-44, 96-103.

<sup>23</sup>Wesley Frank Cate and James Lea Cate, ed, The Army Air Forces in World War II, Vol. I (Chicago: The University of Chicago Press, 1947), 178.

<sup>24</sup>Richard Collier, The Road to Pearl Harbor: 1941 (New York: Atheneum, 1981), 215.

<sup>25</sup>Richard Current,

entitled "The Basis For The Army's Allocation For Heavy Bombers." This shows two groups of heavy bombers allocated for the Philippine Islands and states, "The two groups in the Philippines is the smallest force that can have any real influence in that theatre. A larger force is needed if Japanese aggression in the Far East is to be retarded."<sup>26</sup> By October, Stimson was preparing a strategy of national defense to stall the Japanese. He was thinking now in terms of air rather than sea power. His idea was to make the Philippines a base for B-17 bombers which could attack any Japanese expedition daring to move southward past the islands. He wanted to put in the Philippines at least a hundred of the Flying Fortresses, and he calculated on October 6 that he could provide that many in about three months.<sup>27</sup>

On October 14, 1941, Roosevelt raised the question of the "proper strategic distribution" of the heavy bombers to Stimson. The following are excerpts from Stimson's reply in a 'Strictly personal and Confidential' letter dated October 21, 1941.

I have consulted the Chief of Staff, the head of the Air Forces and the head of the War Plans Division of the General Staff. . . . These new four-engine bombers . . . should constitute a great pool of American power applicable with speed and mobility to the respective spots where in the interests of our national strategy of defense it is important that such power should be applied. . . . The ability thus to throw great massed power upon a given place at a given time is one of the essential elements of an effective use of air power. . . . What is happening today in the Pacific exemplifies the importance of the foregoing principles. A strategic opportunity of the utmost importance has suddenly arisen in the southwestern Pacific. . . . Yet even this imperfect threat, if not promptly called by the Japanese, bids fair

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Secretary Stimson: A Study in Statecraft (New Brunswick, N.J.: Rutgers University Press, 1954), 146.

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Pearl Harbor Attack Hearings, part 20, 4431, 4433.

27Ibid., 152, 153.

to stop Japan's march to the south and secure the safety of Singapore, with all the revolutionary consequences of such action.<sup>28</sup>

It is clear from the last sentence of Stimson's memorandum that the United States' political objective in the Far East strategy was to deter Japanese aggression long enough to build up U.S. military strength to a point that would ensure adequate defense. This was translated into the military objective of deploying land-based aircraft to the Philippines to deter Japan and to enhance Philippine defense should deterrence fail. Given Stimson's confidence and Brereton's concerns to Generals Arnold and Marshall of rushing bombers to the Philippines without the proper equipment, facilities, and personnel, it appears that the adverse political consequences of an inadequate deterrent were not specifically evaluated by either the political or the military leadership.

#### JAPAN

In April 1941, the governments of Japan and the U.S. began conversations directed at improving their deteriorating relationship. Prince Konoye related the progress of Japanese-American negotiations during the time of his second and third cabinets in his memoirs. These memoirs were cited at the Pearl Harbor Hearings in 1946.

While the complicated and prolonged diplomatic negotiations were being conducted between Tokyo and Washington, in Tokyo itself, a question of special significance was being deliberated upon by the cabinet. The question was whether to continue negotiations indefinitely with America, or whether to break them off abruptly. And more important still, they were considering whether war with America would follow upon the heels of the breaking off of negotiations.<sup>29</sup> Negotiations dragged on. By October 1941, the Japanese felt the "... United States had already discovered the innermost mind of Japan, [and] it will henceforth only drag out negotiations as long as possible." Japanese leaders felt that if negotiations were to extend

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Pearl Harbor Attack Hearings, part 20, 4443, 4444

29Ibid., part 20, 4003

themselves, ". . . the longer they did so the better it would be for the United States."<sup>30</sup> For all intents and purposes, negotiations were deadlocked and Japan prepared for war with America. According to Prime Minister Tojo, if Japan continued with negotiations deadlocked and broken economic relations, even without war, the final consequences would be gradual impoverishment. Japan was concerned about survival. Tojo concluded, "That was the reason for reaching the decision to go to open hostilities, . . .".<sup>31</sup>

On November 15, 1941, at the 69th Liaison Conference, the leaders of Japan adopted the following national policy objectives and military objectives:

1. We will endeavor to quickly destroy American, British, and Dutch bases in the Far East, and assure our self-preservation and self-defense. . .and to destroy the will of the United States to continue the war.
2. Our Empire will engage in a quick war, and will destroy American . . . bases in Eastern Asia and in the Southwest Pacific region.<sup>32</sup>

In order to accomplish the second object, Japan's first phase of operations included an invasion of the Philippines. This was to be carried out by the 2nd Fleet, comprising two battleships, two small aircraft carriers, 11 heavy cruisers, seven light cruisers, 52 destroyers, and 16 submarines.<sup>33</sup>

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<sup>30</sup>Ibid., part 20, 4008

<sup>31</sup>Ibid., part 20, 4012.

<sup>32</sup>Nobutake Ike, translator and editor,

Japans' Decision For War: Records of the 1941 Policy Conferences (Stanford, California: Stanford University Press, 1967), 247-248. For a list of all the policies and a summary of the discussion at this conference see the referenced ages.

<sup>33</sup>

Pearl Harbor Attack Hearings, part 11, 5354.

## **AIRPOWER'S SPECIFIC MISSION AND EMPLOYMENT**

### **UNITED STATES**

As mentioned above, for airpower to be effective, air planners must be able to translate the military objective into a specific air mission. Coincident with the political objective, the military objective in this case was to use American air assets to deter Japanese expansion and interdict it if it moved south. However, in the rush to get aircraft to the Philippines, the “. . . question of what to do with them when they reached the Philippines received hasty, sometimes conflicting answers from the military staff.”<sup>34</sup> How were the few AAF units in the Philippines to be used to deter Japanese expansion or interdict Japanese forces should they move south? Air strategists noted that Japan “would be impressed” if the B-17s being sent to the Philippines followed a route through Siberia, then “along the edge of Japan,” exposing the vulnerability of “vital Japanese industrial establishments.” This plan did not materialize when the Soviets refused America’s request to ferry aircraft through Siberia.<sup>35</sup> The guidance Brereton received from the War Department was meager: “. . . I was made to understand that it was of the utmost urgency to be prepared to act at any time with the equipment at hand.”<sup>36</sup> In his diary though, General Brereton does not give any indication of a specific air mission to fulfill the military objectives. On October 16, 1941, notes from a meeting of the Air War Plans Division officers give some insight. One of the officers, Major Hansell, remarked that he had spent October 15 in the “War Room on the presentation of A-WPD/1 and the Far East situation, explaining what we didn’t know about the Far East. We are trying to

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<sup>34</sup>Michael S. Sherry, *The Rise of American Air Power* (New Haven: Yale University Press, 1987), 108.

<sup>35</sup>Ibid., 110-111.

<sup>36</sup>Brereton, 11.

get together today everything that we possibly can that will help General Brereton.”<sup>37</sup> Colonel George, another planner at the meeting remarked after Hansell:

Had a meeting yesterday with General Brereton in regard to the Philippine Air Force. General Marshall told him very plainly that the Philippine situation had been raised to a first priority. Meeting today to answer any questions that General Brereton may ask about the situation over there.<sup>38</sup>

A look at the make-up of the AWPD may indicate the content of Colonel George’s briefing to Brereton on October 16. The function of the Air War Plans Division staff was to prepare the overall plans for the AAF. AWPD was divided into a plans group and a projects group. The plans group consisted of a “strategical & joint plans policy” section, and three theater sections representing geographical areas: (1) Far East; (2) Europe, Africa and Near East; and (3) Western Hemisphere. The responsibility of the theater sections was to develop air phases of war plans for operational theaters. One of the principal duties of each theater section was to prepare air estimates of the situation within their geographic area. The estimates were to cover such questions as: What kind of air warfare will the enemy employ? How well are they prepared - economically as well as for air warfare? What concentrations and movements of the AAF are required to defeat them in the air? What personnel, equipment, supplies, etc.? <sup>39</sup>

After the plans group formulated plans for the air component, the project group was to work out details such as facilities needed to support and maintain the force. This group was to correlate activities with other agencies doing similar work for the ground forces and the Navy.<sup>40</sup> However, an analysis of the Air War Plans Division on November 13, 1941 reported that air war plans for the theaters had not been adequately

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<sup>37</sup>Notes on AWPD Officers Meeting, October 16, 1941, 1. HRA file #145.96-220.

<sup>38</sup>Ibid.

<sup>39</sup>AWPD Report No. 4, November 13, 1941. HRA file #145.96-94

<sup>40</sup>Ibid.

developed. In fact, it was estimated that only 20% of the necessary planning had been completed.<sup>41</sup> While not conclusive, this evidence suggests strongly that the detailed staff work required to determine the total requirements for an air deterrent or interdiction force in the Pacific had not been accomplished by the Air Staff before Brereton left for the Philippines.

On November 15, 1941, in a restricted press conference with seven Washington correspondents, General Marshall intimated the threat of aerial attack on Japan with B-17s flying from the Philippines should the Japanese step out of line.<sup>42</sup> By December 4, a Far Eastern plan was still nebulous. Staff meeting notes from AWPD on December 4 show the following:

[AWPD] stated that they hoped to have completed by Saturday [6 December] a Far Eastern plan giving complete up-to-date information. This will be in loose-leaf form, to be corrected as corrections are necessary. It is planned to furnish copies to General Marshall, General Arnold, General Spaatz, War Plans Division and a working copy retained in AWPD. . . . In preparation of this, AWPD will need the assistance of some of the other divisions. <sup>43</sup>

It appears that prior to Pearl Harbor, there was no solid doctrine or plan for the employment airpower as a deterrent. Neither was there any detailed air war plan for the Far Eastern theater. It appears that both the political and military leadership either had an exaggerated estimate of the deterrent effect of a few B-17s or that they recognized the force inadequacy but were willing to accept the risk, believing that some deterrent was better than none at all.

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<sup>41</sup>Ibid.

<sup>42</sup>Larry I. Bland, ed.,

The Papers of George Catlett Marshall, Vol.2 (Baltimore: The John Hopkins University Press, 1986), 676-679.

<sup>43</sup>AWPD Staff Meeting Notes, December 4, 1941, 1.HRA file #145.96-220.

## JAPAN

Since Japanese planners assumed the offensive, their military objective was translated into a more concrete airpower mission than that of the United States. A document based on information obtained after December 7, 1941, which contained the reconstruction of Japanese plans leading up to the Pearl Harbor attack, indicated that Japanese land-based air and surface naval units would suffice to support amphibious landings in the Philippines.<sup>44</sup> Japanese naval air units were given responsibility for destroying enemy air and naval forces and covering the landings.<sup>45</sup> An interrogation of Captain Takahashi, a staff officer of the Eleventh Air Fleet in the Philippine Islands and Dutch Indies, straightforward. “The primary mission of the Japanese Force in Formosa, composed of about 300 fighters and bombers, was the annihilation of the American Air Force in the Philippines.”<sup>46</sup>

## CONDITIONS

The U.S. industrial infrastructure and inventories on hand did not permit the immediate shipment of modern airplanes to the Philippines. Aircraft availability, intelligence estimates, air base suitability and equipment, distance and weather were significant conditions that influenced both American and Japanese employment of aviation.

### U.S. and JAPANESE AIRCRAFT AVAILABILITY

In spite of the significant international turmoil in Europe and Asia during the early and mid 1930’s, it was not until 1939 that the U.S. turned away from neutrality restrictions and began to prepare for the possibility of war. That same year Congress

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Pearl Harbor Attack Hearings, part 11, 5354.

45Craven and Cate, 201.

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Pearl Harbor Attack Hearings, part 11, 5362. Interview was conducted 20 October 1945.

appropriated \$531,001,997 to the War Department Military Establishment.<sup>47</sup> Roosevelt asked Congress for \$300 million of that appropriation to purchase aircraft for the Army Air Corps. At that time, the Army Air Corps consisted of only 1,700 tactical aircraft and training planes, 1,600 Air Corps officers, and 18 thousand enlisted men<sup>48</sup> While Roosevelt called for an annual output of 50 thousand aircraft in 1940, (36,500 for the Army and 13,500 for the Navy,<sup>49</sup>), by fall of 1941 the Army Air Corps only possessed the following aircraft in the Philippines:

Bombardment Units

19th Bombardment Group (H) . . . . . 35 B-17s

27th Bombardment Group (D) . . . 0 A-24s (arrived after war began)

Pursuit Units

24th Pursuit Group . . . . . 72 P-40-E's, 18 P-35s

Observation Units

2nd Observation Squadron . . . unknown number of miscellaneous aircraft

Total first line operational aircraft on December 7, 1941 was 135 or 137, with five B-17s in maintenance.50

The Japanese position was much different. Intelligence estimates from the Royal Australian Air Force (which were available to General Brereton and his staff in November 1941) showed the Japanese air order of battle on December 8, 1941 as follows:

|  |     |
|--|-----|
| Fleet Air Arm . . . . .                    | 612 |
| Manchuria . . . . .                        | 800 |
| Japan . . . . .                            | 600 |
| N. and Central China . . . . .             | 198 |
| Mandated Is. . . . .                       | 100 |
| Malaya . . . . .                           | 300 |
| Phil inc. Canton Hainan, Formosa . . . . . | 250 |

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<sup>47</sup>Ibid., part 1, 366-367.

<sup>48</sup>Craven and Cate, 104.

<sup>49</sup>Ibid., 107.

<sup>50</sup>Pearl Harbor Attack Hearings, part 11, 53221-5326.

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Total first line strength ..... 2860 51

Royal Air Force figures for this date, which were generally accepted as correct, estimate the size of the Japanese Air Forces of around 4,500 front line aircraft.<sup>52</sup> Regardless of which estimate is used, both show Japanese overwhelming strength in comparison to the Far East Air Force in the Philippines. If U.S. aircraft were to deter the Japanese from aggression through show of strength, more than 135 first line operational aircraft, only 28 of which were long-range bombers, would be needed.

#### U.S. INTELLIGENCE

Several shortcomings existed in Army Air Force Intelligence during the fall of 1941. Surprisingly, these deficiencies started at the top with the chief of the Army Air Forces. General Arnold states in his book, *Global Mission*, that he never had access to all the secret information available to most high-ranking officers in the War and Navy Departments relating to Japanese movement in the Pacific. "For instance, I never saw copies of the intercepts of the Japanese cables and radiograms, nor the breakdowns of their code messages, until after Pearl Harbor."<sup>53</sup> Consequently, Arnold's knowledge of what the Japanese were doing was sketchy. "I did not know the Japs were fortifying some of the mandated islands and putting air bases where[ever] they could."<sup>54</sup> A possible consequence of Arnold's absence of information filtered down into the AWPD. The analysis of the AWPD submitted to General Muir S. Fairchild on November 13, 1941, cited a deficiency in information on the enemy. The report stated that many of the intelligence estimates needed to develop theater war plans had not been completely evaluated. This resulted in the theater section's delay of producing an air plan until data

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<sup>51</sup>Ibid., part 11, 5324.

<sup>52</sup>Ibid. The RAAF and RAF figures are cited because no estimates from the War Department, Washington, for the period December 8, 1941 were available.

<sup>53</sup>Henry H. Arnold,

*Global Mission* (New York: Harper & Row, 1949), 209.

<sup>54</sup>Ibid., 210.

could be correlated and interpreted.<sup>55</sup> Another inefficiency was the lack of “systematic air reconnaissance.” This was due in part to long-standing differences between the Army and Navy over jurisdictional control of offshore patrol. This lack of “systematic air reconnaissance” left gaps in the knowledge about Japanese strengths and intentions.<sup>56</sup> A puzzling corollary to this was reported by more than one aircrewman stationed on the Philippines. In November 1941, reports by various FEAAF aircrew of Japanese airplanes flying over the islands were ignored. Two members of the 24th Pursuit Squadron stated they encountered nine enemy aircraft flying in three formations. When they reported the incident they were told they were “mistaken”: “. . . he [Lieutenant Walter B. Putnam, a pursuit pilot] knew damned well that he had seen nine ships but he was still told it wasn’t so.”<sup>57</sup> Captain Jim Bruce reported a similar incident before December 8. Captain Bruce had flown so close to the Japanese aircraft that he plainly saw the enemy’s markings. “When he got down, he made a report but was pointedly disbelieved. He never got over it. He would go off and swear to himself.”<sup>58</sup>

Another fault with intelligence was underestimating the enemy’s capability. The plan to reinforce the Philippines and to use heavy bombers as a deterrent was dependent upon the bombers’ ability to reach Japanese bases in Indo-China and Formosa, from where it was thought that Japanese aircraft could not effectively retaliate.<sup>59</sup> Apparently unknown to Air Force intelligence, the Japanese 11th Air Fleet based on Formosa carried out a program to extend the range of its Zero fighters so they could fly cover to the Philippines and back.<sup>60</sup> Without this vital information on Japanese capabilities, the U.S.

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<sup>55</sup>Report No. 4, November 13, 1941, 14.

<sup>56</sup>Craven and Cate, Vol. 1, 191.

<sup>57</sup>Interviews with crews of the FEAAF. Interview No. E-1, HRA file #168.7022-6.

<sup>58</sup>Ibid., No. E-7.

<sup>59</sup>R. J. Overy,

*The Air War: 1939-1942* (Michigan: Scarborough House, 1980), 88.

<sup>60</sup>Ibid., 89.

forces on the Philippines were able to estimate accurately neither the nature of the threat against them, the force required to deter it, nor the force required to conduct an adequate defense should deterrence fail.

#### *JAPANESE INTELLIGENCE*

Inadequate numbers of aircraft, lack of suitable airfields, and little support capability were only a liability for deterrence if the Japanese detected these shortcomings. If the Japanese had magnified U.S. airpower based on unconfirmed strength, there existed a possibility that the American shortcomings may not have been a liability in signaling determination. However, the Japanese had spies throughout the Philippines. General Brereton noted, “Japanese espionage was a constant thorn in our side. They had agents everywhere.”— First Lieutenant Walter Putman, the commanding officer of the Headquarters Squadron, 24th Pursuit Group, *STATED THAT THE JAPANESE “ESPIONAGE WAS REMARKABLE.” HE MENTIONS THE DISCOVERY OF TWO LARGE TRANSMITTING STATIONS ON THE PHILIPPINES, ONE NEAR NICHOLS FIELD AND ONE AT ANGELES.*<sup>62</sup>

Reconnaissance flights over Luzon from Formosa were carried out during the last week of November. During the interrogation of Captain Takahashi he was asked what gave the Japanese impression that there were 900 planes in the [Philippine] area and how did [the Japanese] discover that there were only 300 planes? He replied,

The Navy received on 20 November 1941, a report from the Foreign Affairs Department that there were about 900 planes in the Luzon area. A photographic reconnaissance plane conducted a search on the 24th or 25th of November . . . and discovered that there were only 300 planes.<sup>63</sup>

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<sup>61</sup>Brereton, 51.

<sup>62</sup>Interviews with crews of the FEAAF. Interview No. E-1, HRA file #168.7022-6.

<sup>63</sup>

Pearl Harbor Attack Hearings, part 11, 5362.

### U.S. AIR BASE SUITABILITY AND SUPPORT

In January 1941, there were three major military airfields in the Philippines, Clark Field, about 60 miles north of Manila, and Nielson and Nichols Fields on the outskirts of Manila. Since the airfields were so short in length they were extended during 1941. This was a slow process; and because of the shortage of suitable fields, some were used while under construction. By December 1941, four more airfields were in use: Iba, Rosales, Del Carmen, and Del Monte Fields. (Del Monte Field was on Mindanao.) One of the reasons Brereton was selected to assume command of the Far East Air Forces was because of the ". . . fact that the buildup of the Far East Air Force in its early stages would be largely one of preparing services and facilities. Airplanes, airfields, pilots and all the things needed to run an air force were practically nonexistent in the Philippines . . ." Brereton was one of the few AAF generals who had a supply, maintenance, and tactical background.<sup>64</sup> In his diary, Brereton draws a clear picture of the state of affairs with respect to implementing General MacArthur's plans for preparing the FEAAF.

. . . there was neither equipment nor money nor manpower organized and available for the immediate 100-percent implementation of the program required. It was a question of improvisation all along the line.<sup>65</sup>

Of the seven fields available by December of 1941, only Clark and Del Monte were considered usable for bombers. Del Monte field in fact had no facilities, only an airstrip.<sup>66</sup> The fields provided did not allow for sufficient dispersion, nor for adequate mobility. This concerned Brereton.<sup>67</sup>

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<sup>64</sup>Brereton, 5.

<sup>65</sup>Ibid., 20.

<sup>66</sup>Ibid., 21.

<sup>67</sup>Pearl Harbor Attack Hearings, part 11, 5322-5323.

Another of Brereton's concern was lack of support equipment. As he notes in his diary on November 9, 1941,

There were no spare parts of any kind for P-40's, nor was there so much as an extra washer or nut for a Flying Fortress. There wasn't a spare motor for either Fighter or Bombardment planes. There were few tools of any kind available with which an advance depot could begin rudimentary repair and maintenance.<sup>68</sup>

Lack of suitable air bases and support were significant obstacles if the U.S. were to demonstrate a viable threat. However, time was running out.

#### JAPANESE AIR BASE SUITABILITY AND SUPPORT

While documentation for this area is scarce, it can be assumed that this was not as great a concern to the Japanese as it was to the U.S. The Japanese were operating from established land bases and aircraft carriers within relatively short distances from the mainland of Japan. Since they had been pursuing their systematic expansion of the Empire for some years, most facilities from which they operated could be considered fairly well established.

#### ***DISTANCE AND WEATHER***

The race against time for the U.S. was significantly affected by two factors: the distance between the U.S. and the Philippines and the weather. While aircraft production programs and airfield development were under way, there was nothing that could be done to shorten the 10 thousand mile distance between the U.S. and the Philippines. Weather also hampered the movement of aircraft. An example of this friction is detailed in the movement of the 19th Bombardment Group's B-17s from Hamilton Field California to the Philippines. On October 16, 1941, the 19th Group was alerted for deployment to the Philippines. Due to maintenance delays, the last bomber reached Hawaii on 22 October.

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<sup>68</sup>Brereton, 22.

From Hawaii, the entire movement of aircraft was “. . . plagued by unfavorable weather . . .”<sup>69</sup> It wasn’t until November sixth, twenty-one days after their initial alert, that all but one of the B-17s arrived in the Philippines.

For the Japanese, distance was less significant, southern Japan to Formosa being approximately one thousand miles. As far as weather considerations, the Japanese could control the weather no more than the Americans. One significant instance of weather did affect Japanese air activity. Records indicate that rain above Luzon on December 8, 1941, delayed the plan for an early morning attack which would have coincided much more closely with that at Pearl Harbor. This gave U.S. forces on the Philippines advance notice of hostilities by several hours.<sup>70</sup>

### **DID AIRPOWER ACCOMPLISH THE OBJECTIVE?**

With the attack on Pearl Harbor and subsequently the Philippines, all hope for deterring Japanese aggression through a show of strength vanished. The harsh reality was that the U.S. political and military objectives of stationing significantly threatened the Japanese nor deterred them from hostile action against the Philippines.<sup>71</sup>

### **CONCLUSION**

Deterrence concerns estimating and influencing an adversary’s intentions. When the United States realized diplomatic negotiations with Japan were stalemated, both the political and military leadership turned to airpower as a tool of foreign policy to deter Japanese aggression and buy time for a U.S. military build up. In essence, U.S. leadership hoped that the threat of military action against Japanese aggression would check Japan’s advances for some undetermined period of time. However, the inability to

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<sup>69</sup>Craven and Cate, Vol. 1, 182.

<sup>70</sup>Ibid., 203.

<sup>71</sup>This analysis has purposely avoided the controversy over why Brereton’s planes were on the ground when the Japanese struck. The strike itself indicated that the deterrent mission had failed.

link the political objective with an airpower doctrine, capability, and situation analysis prevented the development of a successful operational concept. These are the underlying reasons that Roosevelt was unable to harness military power to an effective foreign policy designed as an alternative to war.

Using airpower as a deterrent had many shortcomings. First, time was critical and quickly running out. While the U.S. had planned extensively for a war with Japan since 1904, resources for executing the plan did not exist. Between 1939 and 1941 America awakened to the dangers of global conflict and began to mobilize. However, a hollow military and a late start of rearmament in 1941 prevented the US from carrying out all its plans. The attempt to use airpower as a tool of diplomacy in the Philippines was too little, too late. Second, the military objective was never clearly translated into a specific airpower mission. There was no definitive mission for airpower in the Philippines, nor was there doctrine to guide its use. Third was the failure of reinforcements to arrive on schedule due to the lack of aircraft in the U.S., the long distance required to travel and bad weather. Not only were material resources inadequate, but the infrastructure in the U.S. needed to produce material resources was not yet fully mobilized. The inadequacy of the force was exacerbated by the inadequacy of Philippine airfields and support. And all these factors were greatly complicated by the vacuum of intelligence concerning the enemy's strength, capabilities, and intentions. Hindsight suggests that for the U.S. politico-military leadership to have implemented a successful plan using air assets as the tool of diplomacy each of these shortcomings needed to be addressed. Airpower cannot implement foreign policy if the resources and support are not in place. An appraisal of the air dimension given by Imperial Navy Admiral Tomoika after the war lends credence to this: "If MacArthur had an air force of 500 planes or more, we would not have ventured to strike the Philippines."<sup>72</sup> The United States Strategic Bombing Survey also

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<sup>72</sup>Alvin D. Coox, "The Effectiveness of the Japanese Military Establishment in the Second World War", *Military Effectiveness*, Vol.3, 24.

comments on the U.S.' plan before Pearl Harbor. "To have implemented an adequate plan in December 1941 would have required better intelligence regarding Japanese intentions and capabilities, [and] an earlier understanding of the predominant and indispensable role of air strength . . ."<sup>73</sup> The drafters of the survey went on to observe that,

One thousand planes in the Philippines, at least equal in performance to the best then available to the Japanese . . . and dispersed on some 50 airfields, would have seriously impeded the original Japanese advance if knowledge of their existence had not entirely dissuaded the Japanese from making the attempt.<sup>74</sup>

Given the impossibility of putting 500-1000 airplanes in the Philippines in late 1941, the lack of support on the islands for the bombers that were there, and the ignorance of enemy intentions and capabilities, it is clear that the concept of airpower as a deterrent force had not been adequately thought through. Hap Arnold was fond of observing that, "Air power is not made up of airplanes alone. Air power is a composite of airplanes, air crews, maintenance crews, air bases, air supply, and sufficient replacements in both planes and crews . . ."<sup>75</sup> The disaster in the Philippines certainly proved him right.

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The United States Strategic Bombing Survey: Pacific War (Alabama: Air University Press, 1987), 56.

74 Ibid., 111.

75 Arnold, 291.

What I can't figure out is why we never plan ahead and have things ready. Take the Philippines, -- not enough pursuit to defend one airport. They knew this was coming and yet, only a few outmoded planes were there. Why not send first-class equipment instead of A-24's, P-40's and B-18's. They could have changed the story.

Lieutenant Roland R. Birnn from his war diary, 20 December 1941.

## CHAPTER 3

### THE BERLIN BLOCKADE

*As a political weapon, the air lift has been tremendously effective. Even the Russians have found no answer to it. They ridiculed it in their German-language newspapers in Berlin, but the citizens of the capital looked aloft and, seeing flour and coal coming to them on wings, laughed at the efforts of the Soviet propagandists. Only history can decide how vitally important in political terms the air lift will have been.*

*Colliers Magazine,  
Sept. 25, 1948.*

#### INTRODUCTION AND OVERVIEW

On June 24, 1948, the Soviet Union imposed a total land blockade around the Western zones of Berlin, making it seemingly impossible for the two and a half million people in West Berlin to survive unless they consented to Soviet demands.<sup>76</sup> The first protracted post World War II superpower confrontation began. The Soviet Union felt that taking Berlin would not be challenged by the West. They were wrong. America, Britain, and France made a stand against aggression. In what appeared to be a diplomatic checkmate of the West by the Soviet Union, the West turned to airpower as a nonviolent tool of foreign policy to break the checkmate. Airpower, combined with tough, realistic diplomacy, deprived the Russians of a quick and easy conquest. How and why was this application of airpower so successful? A look at the crisis in context and an analysis in the established framework will answer this.<sup>77</sup>

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<sup>76</sup>Ferdinand Kuhn, "The Facts Behind the Berlin Crisis" The Washington Post, October 4-8, 1948, 4.

<sup>77</sup>This analysis focuses solely on the American application of airpower during the crisis. The term 'Operation Vittles' refers specifically to the American contribution in the airlift. The British contributions were code named 'Operation Planefare.' Allied contributions to the Berlin Airlift were significant; and the author means no slight to their efforts. However, the limited scope of this thesis requires an examination of only the American operation.

## CRISIS IN CONTEXT

In Germany in 1948, people who just three years earlier had fought each other were learning to work together. Allies who fought together were learning to govern together. There was hope for more stability in Europe. By June 1948, the hope was quickly disappearing. A deteriorating relationship between the Soviet Union and the West, diverging policy differences concerning the governing of Germany, and the maneuvering of political giants to fill the vacuum created by Germany's defeat signaled a turning point in the Cold War.

In the spring of 1948, the Russians demanded the right to inspect all Allied trains entering Berlin. The Allies protested, and when the Soviets insisted upon inspecting the passenger trains, the Allies stopped all train service. Next, the Russians established inspection posts along the highways which stopped traffic from the West to Berlin. "Technical difficulties" was the reason the Soviets gave for closing off the remaining freight traffic, barge traffic, and land avenues into West Berlin in June 1948.<sup>78</sup> The Allies had only the air corridors remaining between the West and Berlin.<sup>79</sup>

### THE BEGINNING OF TROUBLE

Political turmoil was brewing long before June 1948. Growing U.S. suspicions of Soviet designs to spread communism, increased dissatisfactions among the Allies concerning the Potsdam Agreement, and Western attempts to make West Germany an Allied State instead of treating the former Reich as a single economic unit all contributed to the growing political unrest between East and West.<sup>80</sup> It was becoming evident that Lenin's phrase "Whoever has Germany has Europe" was still relevant.

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<sup>78</sup>Kuhn, 4.

LUCIUS D. CLAY, The Papers of Lucius D. Clay, 2 vols. (Bloomington: Indiana University Press, 1974), 2:729.

<sup>80</sup>Kuhn, 2.

After World War II, an agreement among the Allies divided Berlin into four occupation zones. The United States, Great Britain, and France, each had a zone in the western half of Berlin while the Russian zone became East Berlin. Even though Berlin was located in the heart of Soviet occupied Germany, access to the city by the Western powers was never secured by formal agreement. During wartime negotiations, Washington felt that the question of access could be settled later on a military level.<sup>81</sup> Either by design or good fortune, there was a guarantee in writing between the West and the Soviet Union that entitled the West to the use of three twenty-mile-wide air corridors leading into Berlin from the West. This guarantee turned out to be fortuitous when the Soviet Union challenged the West for control of Berlin with a blockade. It allowed what came to be known as Operation Vittles (the American portion of the Berlin airlift) to meet the Soviet challenge of a land blockade. For both psychological and practical reasons, the U.S had to maintain its presence in Berlin. The decision of how to meet the Soviet challenge was made in Washington: keep Berlin alive through airlift until a diplomatic solution could be reached. In this confrontation no combative force was used to conduct foreign policy. A new chapter opened for American airpower and its relationship with foreign policy. As [Air Force](#) magazine noted in September of 1948,

For the first time in history, the United States is employing its Air Force as a diplomatic weapon. . . . in keeping with its coming of age as the nation's first line of defense the USAF has taken on two big assignments in international affairs. . . One is what has been called 'the return of the American Air Force to Europe,' the arrival of two groups of Strategic Air Command B-29s in England. . . . The second is the Berlin Airlift. . . . The first chapters of the 'role of air power in diplomacy' are being written here.<sup>82</sup>

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<sup>81</sup>W. Phillips Davison, [The Berlin Blockade: A Study in Cold War Politics](#) (New York: Arno Press, 1980), 3-5.

<sup>82</sup>John G. Norris, "Airpower in the Cold War," [Air Force](#), Sep 48, 25.

## U.S. AND RUSSIAN POLITICAL OBJECTIVES

On June 27, four days after the Russians closed off land access to Berlin, Army Secretary Kenneth Royall, Undersecretary of State Robert A. Lovett, Assistant Chief of Air Staff Lauris Norstad, and other officials from the defense services met to assess the situation.<sup>83</sup> To them, the problem was clear cut. “The choice, as Lovett put it . . . was to abandon Berlin to the Russians, or to hang on.” If the U.S. abandoned Berlin, it would condemn thousands of anti-Communist Berliners to labor camps; would lead millions of Germans to think the U.S. was pulling out of Europe; would weaken the resistance to communism in Western Europe and “. . . would in short, knock the props from under American foreign policy everywhere.”<sup>84</sup>

The next morning, Defense officials, Secretaries Marshall, Forestall, and Royall, sought presidential approval to feed Berlin through an airlift.<sup>85</sup> By the next day, 39 C-54's were on their way to Germany.<sup>86</sup> Simultaneous to the decisions made in Washington, General Lucius D. Clay, Military Governor of Germany, also considered the use of airlift.<sup>87</sup> This first step was considered a stopgap until high level diplomacy could lift the blockade. According to Marshall,

[The] United States was willing to settle the Berlin quarrel by negotiation, or by arbitration, impartial inquiry or any other method provided in Article 33 of the

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<sup>83</sup>Avi Shlaim, The United States and the Berlin Blockade, 1948-1949 (Berkley: University of California Press, 1983), 218. Lovett served as Assistant Secretary of War for Air during WW II.

<sup>84</sup>Kuhn, 5.

<sup>85</sup>Marshall was Secretary of State, Forestall was Secretary of Defense, and Royall was Secretary of the Army.

<sup>86</sup>Ibid., 5.

<sup>87</sup>Clay, 2:701.

Charter of the United Nations. But, . . . the United States would not negotiate under duress, and not until the blockade had been lifted.<sup>88</sup>

By July 14, the Soviets replied to the U.S.' gesture. The Russians" . . . claimed that 'Berlin lies in the center of the Soviet zone and is part of that zone' - a claim never before put forward officially."<sup>89</sup> Russian objectives became clear. They wanted to get the Allies out of Berlin and to reverse or delay the decision to set up a western German government.<sup>90</sup> This galvanized the U.S. political will. "It is not merely a point of pride or vanity with us. American prestige is the solid rock on which all Europe builds its hopes for the future. . . ."<sup>91</sup> The psychology of hope built up by the Marshall Plan would collapse overnight if the Americans retreated. As Lovett feared, American foreign policy would appear bankrupt. The American determination to resist the Soviet threat to Berlin and the principles Allied presence stood for carried with it a challenge: avoid the danger of military hostilities that may occur either by design or by accident. According to President Truman, "Our position in Berlin was precarious. If we wished to remain there, we would have to make a show of strength. . . . there was always the risk that Russian reaction might deliberately choose to make Berlin the pretext for war. . ."<sup>92</sup>

After preliminary State Department and National Defense discussions with the President, top-level Departmental policy recommended for Cabinet approval was this:

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<sup>88</sup>"United States Protests Soviet Blockade of Berlin: Note from Secretary Marshall to Ambassador Panyushkin," Department of State Bulletin, July 18, 1948, 86 and "Message from US Air Force Washington DC to US Air Force in Europe," 27 November 1948, 1.

<sup>89</sup>Kuhn, 6., also, USSR Information Bulletin, October 28, 1948, 428.

<sup>90</sup>"The Current Situation in Germany: Address by Secretary Acheson." Department of State Bulletin, 8 May 1949, 591, and Kuhn, 7, and Clay, 2:697.

<sup>91</sup>"Operation Vittles," paper prepared by Air Installations Directorate, HQ USAFE, October 1948, 20, HRA file #572.153A

<sup>92</sup>Shlaim, 12.

- 1) We [will] stay in Berlin
- 2) We will utilize to the utmost [the] present propaganda advantage of our position
- 3) We will supply the city by air as a beleaguered garrison
- 4) Subject to final checking by the Secretary and the President we will further increase U.S. strength in Europe<sup>93</sup>

Ultimately, U.S. decision makers decided that in order to maintain position in Berlin, the U.S. objective would be to provide for the physical well-being and safety of the German population in the Allied sector of Berlin while pursuing a peaceful resolution to the crisis.<sup>94</sup>

### **POLITICAL OBJECTIVE TRANSLATED INTO A MILITARY OBJECTIVE**

#### UNITED STATES

The atmosphere in which the administration's policy objectives became military objectives was tense and uncertain. President Truman and Secretary Marshall feared provoking the Soviets and escalating the crisis into a third world war. In essence, Truman and Marshall declared the likelihood of the interdependence between Russia's crisis behavior and that of the United States. In contrast, Clay disagreed with the concept of interdependence between Russia's behavior and America's. Clay believed that Russia decided before the crisis whether or not it would go to war over the Berlin issue. The Soviet decision, thought Clay, was against war.<sup>95</sup> In a conversation between Secretary Royall and Clay on 25 June 1948, Clay expressed the following:

It seems important now to decide just how far we will go short of war to stay in Berlin. We here think it extremely important to stay . . . except for our capacity to stick it out, we have few chips here to use and future actions would appear to be at governmental level. . . . I regard this possibility [war with the Russians] as rather remote, although it must not be disregarded. Certainly we are

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<sup>93</sup>Ibid., 223.

<sup>94</sup>"United States Protests Soviet Blockade of Berlin: Note from Secretary Marshall to Ambassador Panyushkin," Department of State Bulletin, July 18, 1948, p. 85.

<sup>95</sup>Shlaim, 171-194.

not trying to provoke war. . . . Personally, I have little fear of crisis affecting us. What I do fear as pointed out in many past messages, such suffering brought upon Germans in Berlin as to drive us out to relieve their suffering.<sup>96</sup>

Three days after Clay launched the airlift to supply Berlin, on June 28, Truman met with Secretaries Forestall, Royall, and Lovett. During this meeting Truman ruled in favor of staying in Berlin. He also gave approval to dispatch B-29 bombers to Europe and agreed that Clay should pursue negotiations with Soviet Marshall Sokolovksy, Chairman of the Allied Control Council. By July 19, after a series of high-level conferences, Truman confirmed a firm US resolution to maintain American presence in Berlin and to take all the necessary measures to exercise its rights.<sup>97</sup> U.S. military objectives mirrored the political ones: maintain a presence in Berlin with the airlift and deter further Soviet aggression with a show of force. The United States Air Force contributed a significant role in supporting this resolution.

U.S.S.R.

On July 3, Clay and other Western military representatives drove to Marshall Sokolovsky's headquarters near Potsdam. The Western authorities told Sokolovsky they were anxious for an agreement to end the blockade. Sokolovsky made it clear that the blockade would remain in place until plans for a West German government were abandoned.<sup>98</sup> The linkage was clear: the Soviet military objective was to isolate West Berlin from the Allied sectors of Germany in order to achieve the political objective of keeping the Allied sectors from becoming a unified state. As an official statement from Tass expressed, "The Soviet Government insists on establishment of control by the Soviet command over transportation of commercial cargoes and passengers by air

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<sup>96</sup>Clay, 2:702-703.

<sup>97</sup>Shlaim, 171-194.

<sup>98</sup>Davison, 122-123, and Clay, 2:724-726.

between Berlin and the Western zones; similarly over transportation by rail, water and highway.”<sup>99</sup>

#### **AIRPOWER'S MISSION AND EMPLOYMENT IN BERLIN: JUNE 1948-MAY 1949**

##### *U.S. MISSION*

General Lucius D. Clay, Military Governor of Germany, considered three alternatives to attain the U.S.’ objectives of maintaining American presence in Berlin:

1. Sending an armed convoy along highways
2. Offering the Russians a compromise proposal on the Berlin currency question
3. Launching an airlift to supply the blockaded city.<sup>100</sup>

The Truman administration accepted the airlift proposal. Airlift avoided a direct provocation of war; and, in Truman’s opinion, airlift would serve to stretch stockpiles of rations in Berlin and gain time for negotiations.<sup>101</sup>

Clay needed air assets, so he telephoned Lt.Gen. Curtis E. LeMay, Commander of U.S. Air Forces Europe, to request air support for the airlift.

CLAY : Have you got any planes there that can carry coal?

LEMAY : Carry what?

CLAY : Coal.

LEMAY : The long-distance connection must be bad. It sounds as if you are asking whether we have any planes for carrying coal.

CLAY : Yes, that’s what I said - coal.

LEMAY : (Pause) Airplanes can carry anything!<sup>102</sup>

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<sup>99</sup>USSR Information Bulletin, October 6, 1948, 587.

<sup>100</sup>Clay, 2:701.

<sup>101</sup>Shlaim, 201-202, William H. Tunner, Over the Hump (New York: Duell, Sloan, and Pearce, 1964), 159

<sup>102</sup>Demaree Bess, "What Did the Airlift Really Prove?" Saturday Evening Post, 25 June 1949, 28.

LeMay commented a few years after this conversation, “I never dreamed. . . how serious Clay was about the whole [Berlin airlift] thing. . . . He was going to buckle down and support the city of Berlin entirely by activity in the air.”<sup>103</sup> The militaries of the three Allied powers decided exactly what supplies were necessary to sustain West Berlin.<sup>104</sup> However, exactly how much airlift could contribute was continually modified. Major Edward Willerford, an Air Force action officer engaged in planning the airlift commented, “. . . if you run across anyone in the theater who tells you that he knew we could do it all the time, pass him up. We didn’t know all the answers all the time. We kind of astounded ourselves.”<sup>105</sup>

While airlift was the predominant Air Force means to achieve political objectives, another aspect of airpower was also substantial. Serious thought focused concurrently on the use of airplanes in a signaling role. This came in the form of reinforcing Europe with combat aircraft such as the B-29. Secretary of Defense Forestall wanted to know what immediate capabilities were available. Secretary of the Air Force, Stuart Symington replied that the Air Force had one fighter group with seventy-five P-51s, and three heavy bomber groups, with thirty B-29s each that could depart twelve hours after notification. Three additional heavy bomber groups, also with thirty B-29s each could begin departing in ten days.106

The use of aircraft in the signaling role had serious implications. “The B-29s were known throughout the world as the atomic bombers, and to put a strong force of

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<sup>103</sup>Shlaim, 204.

<sup>104</sup> Eric Morris, Blockade: Berlin and the Cold War (New York: Stein and Day, 1973), 107.

<sup>105</sup>Davison, 113.

<sup>106</sup>Ibid., 204-205.

them into [Europe] would be to bring them within striking distance of Moscow.”<sup>107</sup> The growing awareness of the relevance of America’s airpower to the Berlin situation gave the Air Force the added mission of boosting the confidence of the American decision-makers and relaxing the pressure for any exploratory or accommodating moves on the diplomatic front which could be perceived as signs of weakness.<sup>108</sup> Forestall summarized the considerations he and Marshall passed on to the President regarding sending B-29s to England:

- 1) the action would underline to the American people how seriously their government viewed the current sequence of events
- 2) it would give the U.S. Air Force experience in this kind of operation and also accustom the British to accommodate the forces of an allied power and
- 3) once the planes were sent, they would become somewhat of an accepted fixture<sup>109</sup>

The U.S.’ political objectives were thus translated into a dual Air Force mission. support American foreign policy, airlift was used to feed the city of Berlin and maintain an Allied presence. Second, long-range nuclear capable aircraft, notably B-29s, were deployed to Europe as a concrete token of American commitment to European defense. The aircraft signaled a warning to the Russians: any further aggression in Berlin might provoke air action against them.

#### *U.S. EMPLOYMENT: AIRLIFT*

When the Berlin Airlift began on June 28, 1948, it was characterized as a haphazard, carefree operation. Few airplanes, limited crews, and little, if any scheduling procedures existed. Pilots roamed the flight line and chose their sortie by looking for an

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<sup>107</sup>Ibid., 228.

<sup>108</sup>Ibid., 229.

<sup>109</sup>Ibid., 236.

aircraft loaded and ready to go.<sup>110</sup> The aircraft that was first available for the airlift was the twin engine C-47, a 1934 vintage airplane that saw duty throughout World War II. Slightly more than one hundred C-47's were available in the European theater, each with a cargo capacity of close to three tons. General Clay estimated he would need 500 - 700 tons a day of airlift. It turned out that he actually needed a daily minimum of four thousand tons. With a limited cargo capacity per C-47, the airlift was doomed to result in failure. Within a week of beginning the airlift, C-54s from U.S. bases around the world started arriving in Germany. The C-54, a 1939 vintage airplane, had a cargo capacity of 10 tons and would soon replace the struggling C-47s as the mainstay of the airlift. As the airlift operation grew, LeMay decided to set up an airlift task force in Germany. His aim was to lift maximum tonnage in the safest and fastest manner possible with the resources at hand.<sup>111</sup> On 30 July 1948, Major General William H. Tunner assumed command of the airlift task force. Tunner was experienced in airlift operations. During WWII, he organized the famous airlift operation across the Hump from India to China. In the CBI Theater, Tunner formulated the basis for airlift doctrine. In the Berlin airlift, Tunner organized what was recognized as a "most brilliant single air operation."<sup>112</sup>

Tunner and his staff instituted an efficient organization for airlift traffic. Aircraft and aircrews were integrated into a tight-knit schedule. Loaded aircraft took off for Berlin every three minutes when the weather was good, or a slightly longer interval when weather was bad. On the ground, loading and unloading were the subject of time-motion studies. Flight crews, ground crews, and maintenance troops were subject to robot-like

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<sup>110</sup>Morris, 99.

<sup>111</sup>Letter from General Lemay to General Vandenburg, 23 Aug 1948, "Subject: Operational Control of Berlin Airlift and USAFE position," 1. HRA file #570.162d

<sup>112</sup>Tunner, 152-224, and Charles J. V. Murphy, "The Berlin Airlift," Fortune, 38, no. 5, 5 November 1948, 92.

processes. An example of the airlift's efficiency is seen in the utilization rate of the C-54s. (The utilization rate during the airlift was measured by the hours per day the airplanes spent in the air.) C-54s had a peacetime utilization rate of three and a half hours a day. As Tunner's methodical direction took control, the utilization rate rose to six hours a day and then to almost nine hours a day. On average, there were 88 C-54s airborne at any one time, flying 620 flights a day. This involved 528 crewmembers, and 2,112 flying hours, for a lift capacity of 6,200 tons.<sup>113</sup> Tunner continually fine-tuned the airlift. The results of the airlift's systematized approach were demonstrated during Easter Sunday in 1949. On that day, Tunner's airlift task force logged 1,398 sorties and carried 12,942 tons of cargo in a 24 hour period! A month later the Soviets, realizing the airlift was unstoppable without the use of force, ended their blockade.<sup>114</sup>

Between June 1948 and May 1949, when the Soviet Union lifted the blockade, the U.S. Air Force airlifted more than 1.6 million tons of supplies, flew over 172,000 sorties and logged over 530,800 flying hours in the supply effort for Berlin.<sup>115</sup> ~~Never before were airplanes used on such a scale and in such a tremendous logistical effort. In the Berlin airlift, the Air Force convincingly demonstrated that the unglamorous independent, indirect application of airpower could successfully meet the Soviet challenge of blockade. Not a shot was fired in this confrontation. The airlift proved itself in some ways as important and necessary to the nation as the fighter and the bomber. Operation Vittles was more than just an airlift. As a tool of foreign policy, the airlift was,~~

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<sup>113</sup>Murphy, 223.

<sup>114</sup>Tunner, pp.152-224, and Aubrey O. Cookman Jr., "Life Line to Berlin." Popular Mechanics, February 1949, 114-121.

<sup>115</sup>Tunner, 152-224.

in General Tunner's words, ". . . a propaganda weapon held up before the whole world."<sup>116</sup>

### U.S. EMPLOYMENT: COMBAT AIRCRAFT

#### *USED AS SIGNALS*

Not unlike Washington's intentions ten years earlier in the Far East with B-17s, General Clay, Defense Department officials and some Washington leaders looked to airpower to deter an adversary's aggression. This time the focus was on positioning fighter groups and B-29s in Europe in order to signal to the Russians America's resolve. As General Clay noted in a letter dated 27 June 1948 to General William H. Draper, Undersecretary of the Army who was responsible for supervising the occupation of Germany, "With respect to the augmentation of air forces, I am quite sure that this too is urgent. . . . arrival of aircraft will be deciding factor in sustaining Allied firmness." Clay urged that the movement of a fighter group scheduled to take place in August, be made immediately. He also requested that the squadron of B-29s maintained in Germany be increased to a group immediately, and, that "if available an additional group be dispatched for a prolonged visit to the British Isles."<sup>117</sup> The following day, in correspondence with General Omar Bradley, Army Chief of Staff, Clay outlined his feelings about the B-29s:

While LeMay had rather have the two B-29 squadrons in England rather than Germany for operational purposes, it is essential for our immediate psychological purposes that these two squadrons come to Germany first. If their presence is required for a continued stay, they can shortly be transferred to England.<sup>118</sup>

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<sup>116</sup>Ibid., 180.

<sup>117</sup>Clay, 2:708.

<sup>118</sup>Shlaim, 222

Secretary of State Lovett approved of sending two squadrons of B-29s to Germany and announced that he assumed the other two groups of B-29s would go to England once the British approved. Secretary of Defense Forrestal agreed with Lovett, as did Truman who approved of sending the B-29s to Germany.<sup>119</sup> As B-29s headed to Europe and others were ordered to be ready to take off within three hours of notification, the rest of Strategic Air Command (SAC) was placed on a 24-hour alert.<sup>120</sup> Here, airpower was employed as a deterrent force, never being called upon to bomb the target. The forward deployment of nuclear capable B-29s and the placing of SAC on 24-hour alert, intentionally signaled to the Soviets there would be serious consequences if they pursued stronger measures to push the Allies out of Berlin.

### **RUSSIAN AIR MISSION AND EMPLOYMENT**

While the author was unable to obtain any Soviet accounts of their air mission in support of the blockade, there is evidence that the Russian air element played some role in furthering the Russian political objectives. Russian fighter aircraft harassed airlift flights in the corridors by dashing in and out between formations, firing antiaircraft weapons, buzzing airplanes, sending up balloons and other activities. Between August 10, 1948 and August 15, 1949, a total of 733 incidents took place.<sup>121</sup>

### **CONDITIONS**

For the Berlin airlift to reach a pinnacle of lifting over 12 thousand tons in a 24 hour period, the Airlift Task Force had many obstacles to overcome. Efficient use of resources was imperative. To achieve this, a well-developed and effective airlift

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<sup>119</sup>Ibid.

<sup>120</sup>Ibid., 223.

<sup>121</sup>Roger D. Launius, The Berlin Airlift: Constructive Airpower," Air Power History, spring 1989, Vol. 36, No.1, 18.

headquarters was needed to organize and direct the functional tasks of the airlift. Once organized, more aircrew were required to fly the increasing number of sorties generated by efficient scheduling. With the increase of sortie rates, establishing a series of effective maintenance and supply facilities became necessary. And, in order to maintain the increased sortie rates, the challenge of weather had to be met. Finally, combined control of air traffic was needed to coordinate the Allied efforts.

### **ORGANIZING RESOURCES**

The mission of the Airlift Task Force was “to provide airlift to Berlin and such other places as may be directed by the Commanding General, USAFE.”<sup>122</sup> With this directive, General Tunner set up airlift headquarters in the only facility placed at his disposal: a run-down apartment house in Wiesbaden, Germany. The one thing Tunner did have was his orders from General LeMay, “I expect you to produce.” In short time, Tunner’s Airlift Task Force was organized into eight major functional divisions. These were personnel, communications, airfields, plans, supply, maintenance, cargo handling, and operations. Within the operations division were the weather, and navigation specialties. Each of the functional divisions was lead by officers whom General Tunner hand-picked.<sup>123</sup>

Once the headquarters was established, General Tunner and his staff set out to assess the airlift. “My first over-all impression was that the situation was just what I had anticipated--a real cowboy operation. . . . Everything was temporary. . . . Confusion everywhere.”<sup>124</sup> More planes were needed, and air space was limited, as was ground

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<sup>122</sup>Letter from General LeMay to General Tunner, 30 Jul 1948, "Subject: Instructions to Commander, Airlift Task Force (Provisional)," 1, HRA file #168.7158-295.

<sup>123</sup>Hump, 163-167.

Ibid., 167.

space on operating bases. Because of these limitations, Tunner decided to optimize performance by increasing the utilization rate for every aircraft. This however, influenced maintenance, supply, and aircrew resources.<sup>125</sup>

General Tunner faced numerous challenges in organizing airlift resources. The runway at Tempelhof was in poor condition. It lacked the load-bearing capacity or the length to handle the heavy C-54s. There was, however, no heavy machinery available to improve the runway. The heavy equipment had to be flown in, but it was too big to fit on any airplane. So the equipment was disassembled, flown to Berlin and reassembled. Maintenance was another obstacle. There was a shortage of tools and spare parts in the theater. Old, worn aircraft were flown around the clock in all weather conditions. Special and scheduled maintenance was needed. Facilities were limited in USAFE, so US civilian contractors were brought over. A time schedule and flow pattern were established to handle maintenance. Once the maintenance problem was under control and more aircraft were available, a crew shortage developed. A special training school was established in Great Falls, Montana, to increase the flow of pilots. If there was a shortage of assets in theater, the industrial and military infrastructure in the United States was able to respond. In short, Tunner's drive, the skills of his subordinates, and the focused application of the United States' total military airlift assets were integrated into a cohesive operation.

#### WEATHER

Weather conditions had a two-fold effect on the airlift as the winter approached. First, safety required a more concerted effort. Flying became more challenging as visual flight conditions gave way to instrument conditions. Second, winter brought with it an

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<sup>125</sup>Ibid., 169.

increase in Berlin's needs. This translated into increased tonnage requirements. Since Berlin imported almost all its fuel, coal requirements increased significantly, placing an added demand on the airlift. State-of-the-art electronic and visual landing aids helped overcome the weather challenges. An increase in Air Traffic Control personnel was also helpful.<sup>126</sup>

#### COMBINED CONTROL OF AIRCRAFT

Although this work focuses primarily on the American contribution to the airlift, the British and, to a lesser degree, the French also played a role. The aircraft and ground assets of all three countries had to be efficiently controlled in Berlin in order to avoid midair collisions and to optimize the turnaround rates of aircraft on the ground at Tempelhof. The "who" and "how" of this centralized control were addressed by LeMay.

The "who" part of the equation involved the U.S. Air Force and the Royal Air Force. According to LeMay in a message to General Hoyt S. Vandenburg on 23 August 1948, ". . . operational control of all air traffic into and out of airdromes, traffic control centers, and the corridors to Berlin must be vested in one Hqs if our objective is to be attained."<sup>127</sup> LeMay defined operational control as ". . . the authority to regulate air traffic on and in the vicinity of air bases and along air corridors or air routes used by acft [aircraft] engaged in airlift of supplies to Berlin."<sup>128</sup> LeMay further defined his concept of unified command: "I feel that the basic principle involved is the necessity for vesting in 1 commander operational control as defined, of all units as they become directly engaged in the airlift effort."<sup>129</sup> Eventually, LeMay's vision was realized in a Berlin

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<sup>126</sup>Launius, 16-17.

<sup>127</sup>Letter from General Lemay to General Vandenburg, 23 Aug 1948, "Subject: Operational Control of Berlin Airlift and USAFE position," p. 1. HRA file #570.162d

<sup>128</sup>Ibid., 1.

<sup>129</sup>Ibid., 2.

Airlift Command. Its foundation was the USAF Headquarters already established by Tunner's Airlift Task Force. By agreement with the British and French, General Tunner was designated commander; his headquarters was augmented with an RAF deputy and a handful of RAF staff officers.

The "how" part of the equation addressed characteristics such as the types of aircraft involved, operational standards and practices of the commands involved, the availability of navigational aids and communications equipment in use. Also integrated into the unified control of the airlift was:

1. Routing of aircraft
2. Determination of altitude and distance separation
3. Determination of airdrome and approach control patterns
4. Regulation and supervision of all operational aspects
5. Responsibility for manning, equipping and maintaining facilities and service<sup>130</sup>

Combined control over aircraft and assets involved in the airlift required serious consideration in order to realize the airlift's potential.

#### **DID AIRPOWER ACCOMPLISH THE OBJECTIVE?**

The Berlin airlift was a clear success. It was the first large-scale demonstration of the use of non-combat airpower in executing U.S. foreign policy. Basing the American strategy on the airlift rather than other military options reduced the risk of war by transferring to the Soviets the responsibility of choosing between escalation and defeat.

#### **CONCLUSION**

The Berlin airlift highlighted the importance of many factors required to ensure the successful use of airpower as a tool of foreign policy. Knowing and understanding the national policy objective were imperative. The objectives were to avoid war, maintain an

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<sup>130</sup>Ibid.

Allied presence in Berlin, and convey to the world our commitment in the region while negotiations were pursued to lift the blockade. Clear comprehension of these objectives enabled the USAF leaders to translate them into specific air missions. Resources were available to implement the mission: first because there was an Air Force in being; and second, because Berlin was the only major operation concerning the United States at the time. Whatever resources were not available in theater for the airlift or the demonstration of resolve could be acquired since an industrial infrastructure existed in the United States to draw upon. Organizing resources, once they were available, supported the effective and efficient implementation of the mission objectives. While weather proved a significant challenge, advances in technology that enhanced navigational capabilities and air traffic control overcame those challenges. Also, streamlining control of the airlift system between allies contributed to the airlift's success. The Berlin airlift showed the world that airpower could be used in the execution of foreign policy to deter an adversary's pursuit of dominance and change that adversary's belligerent behavior. Most importantly, the use of airpower in Berlin integrated an airlift doctrine developed in CBI, with a situation analysis driven by necessity and coupled with a 'gut' reaction, and drew upon a virtually unlimited force structure to complete the military mission successfully.

*Dear Sir,*

*Yesterday afternoon I have been standing for awhile on the railroad station Tempelhof, watching the coming and going of the two and four motor airplanes. Everytime, when one of the big planes appeared on the western horizon and started to land there was a light in the faces of the people. Probably you can't imagine what every plane means to us .*

*...*

From a letter to the Commander of Tempelhof Air Base from an inhabitant of the Russian Sector of Berlin. (no date)



## CHAPTER FOUR

### CONCLUSION AND IMPLICATIONS

*Adversaries respect strength and exploit weakness*

*President Ronald Reagan*

#### **INTRODUCTION**

In the fall of 1941, the United States teetered on the brink of global conflict. The Roosevelt administration and military leaders hoped to use airpower to improve the situation. A foreign policy decision was made to rush whatever B-17 aircraft were available in the U.S. to the Philippines with the objectives of deterring Japanese aggression; buying critical time needed for the U.S. to mobilize its armed forces; and if needed, to defend the islands. In all respects, this use of aircraft as a tool of foreign policy failed.

Seven years later, in 1948, American political and military leaders once again coupled the use of airpower with diplomacy to pursue foreign policy. This time the focus was on Berlin, and the tension was between the Soviet Union and the West. Airpower was used in a two-pronged approach. Airlift was used to buy time while diplomacy was pursued; deployment of B-29s was used to signal US resolve. This time, the combination of diplomacy and airpower to execute foreign policy succeeded.

Why was one use of air assets in foreign policy a success and the other a failure? This chapter compares the two cases studied, assesses the circumstances in which airpower can be an effective tool of foreign policy, and discusses major implications. While this study is limited to two cases, it can hopefully shed some light for operational air planners, commanders, and diplomats as to how the use of airpower in foreign policy

has the best chance of success. It also suggests a methodology that can be used to assess other cases in a broader study.

### **ANALYTICAL FRAMEWORK**

The framework laid out in the first chapter was developed in order to discover guidelines that may help a planner or commander make a proper decision for the employment of airpower as an instrument of foreign policy. Given these two case studies, these questions can now be examined in parallel.

### **POLITICAL OBJECTIVE**

In the Philippines, the United States was searching for a way to satisfy two distinct political objectives. First, America wanted to deter the Japanese from further aggression in the Far East and thus avoid war with Japan. Second, if deterrence failed, the objective was to defend the Philippines. It was hoped that deploying B-17s to the Philippines in late 1941 would achieve these ends. The overall Japanese political objective, once they determined the U.S. would not accept their expansionist agenda, was to strike U.S. bases quickly and forcefully before the Americans could muster a formidable military threat in the Far East.

During the Berlin crisis, the U.S. was determined to maintain its presence despite the land blockade. America wanted to settle the quarrel over Berlin in any manner other than direct confrontation. In order to do this, the U.S. focused its political objectives on avoiding war, deterring the Russians from further aggressive action, and providing for the safety of the Germans in the Allied sectors of Berlin. Soviet political objectives were to establish Russian dominance over Germany and to force the U.S. and its allies to discontinue their attempts to set up a western German government.

**ANALYSIS:** In both cases key objectives were to avoid war and deter further aggression. Crucial for the U.S.' objectives was to buy time while a solution to the

dilemma was sought. A key difference was that in the Philippines the U.S. political aim was negative: convince the Japanese not to act. In Berlin, the political aim was positive: make the Russians lift the blockade. There was also a significant difference between Japanese and Soviet political objectives. The Japanese perceived expansion to the south Pacific as vital to their long-term interests and survival. The Soviet's objective was not considered vital to their survival. Another influence on the objectives was the risk of nuclear war. Unlike 1941, in 1948 the possibility of nuclear war played an important role in assessing risks and enhancing the success of a deterrent goal.

### **HOW WAS THE POLITICAL OBJECTIVE TRANSLATED INTO A MILITARY ONE?**

In the Far East, as the threat of Japanese aggression increased, the United States refocused its military strategy. The role of aircraft was key in a deterrent and defensive mission. The military objective was to create an appearance of strength through a show of bombers while the U.S. attempted to make the appearance a reality. Japan's military objective was to use all available resources to strike quickly and massively against the U.S. Their first phase of operations included an invasion of the Philippines.

In Berlin, the military objective was to use airpower to sustain the German people in the western sector and to gain time for negotiations. The Soviet military objective was to maintain the blockade of Berlin, hoping they would eventually starve the Allies out.

**ANALYSIS:** Using airpower to achieve the political objective in the Philippines was a case in which the means were not available to reach the ends desired. In Berlin the reverse is true: the means were available. The guidelines and directives for the military mission in Berlin were much more definitive than those for the B-17s in the Philippines. This was partially due to the nature of the political aims. It is much easier to define a positive aim (Berlin) than a negative one (Philippines). Also, a better understanding of

the adversary in 1948 contributed to successfully translating the political objective into a military one.

### **AIRPOWER'S SPECIFIC MISSION AND EMPLOYMENT**

In the Philippines, a significant portion of the responsibility for the show of force and eventual defense of the Philippines fell on the shoulders of the B-17 force. The mission to deploy B-17s to the Philippines was given to Army Air Force Headquarters. However, with respect to employment of the bombers as a deterrent, there was no doctrine and there was little planning. Nor was there an established doctrine for the bombers to use in defending the Philippines. Japan, on the other hand, had a definite air mission. Japanese airpower was given the responsibility of destroying defending air and naval forces on the Islands, and to provide cover for the land invasion. It achieved both.

In Berlin, the mission and employment of airpower was clear: use airlift to supply Berlin and deploy B-29s to within striking distance of Moscow as a signal of resolve. In WWII airlift doctrine was developed, and, by 1948 as a result of nuclear weapons, theories of deterrence were being developed. The Russians employed their aircraft to harass the Allies' airlift efforts.

**ANALYSIS:** In Berlin, the US had a positive aim, that of making the Russians terminate the blockade. The air mission in Berlin was clearly defined and had doctrine to use as a starting point for employment. In the Philippines, the U.S. objective was fundamentally different. There the aim was to convince the Japanese not to take an action. The air mission in the Philippines was not as clear as in Berlin. There was no established doctrine to use as a guideline; and, due to shortcomings in AWPD, there was little guidance in the form of a mission directive detailing how airpower fit in with the overall war plans.

## **WHAT CONDITIONS INFLUENCED AIRPOWER'S EMPLOYMENT?**

A myriad of conditions influence the application of airpower in any situation. It has been the goal of this paper to single out the most significant conditions influencing the two case studies presented. These conditions are laid out side by side and then analyzed individually. Although each case includes one condition singularly significant to that case, all of the following conditions bear a major influence on their respective situations:

### **PHILIPPINES**

RESOURCES

WEATHER

DISTANCE

INTELLIGENCE

### **BERLIN**

RESOURCES

WEATHER

DISTANCE

ORGANIZATIONAL CONTROL

Resources had the most significant influence on the employment of airpower in both case studies. In both the Philippines and Berlin, there was an initial shortage of aircraft, support equipment, airfields, maintenance facilities, and personnel. In Berlin these shortcomings were quickly remedied. In the Philippines they never were. In October 1941 the U.S did not have the industrial infrastructure to meet the demands of deploying large numbers of aircraft and support equipment to the Philippines. Although industry had been increasing production of war materials, the capability did not exist to build up the defenses of the Philippines quickly. Given the difference in military balance between the Japanese and the Americans, the U.S. did not have enough time to install a force strong enough to deter the Japanese. Contrary to this, in 1948, the U.S. was on a much stronger foundation. Even though the country was demobilizing forces after World War II, there was a large reserve upon which to draw. In time critical situations, as both cases were, success pivots on the ability to employ forces rapidly. This ability allowed American decision makers to act from a position of strength in 1948. In 1941 they hoped

to fool the Japanese into thinking the U.S. was acting from a position of strength, when in fact it was not.

In both the Philippines and Berlin, weather posed an uncontrollable impediment to the expeditious deployment and employment of airpower. For some weather conditions the only avenue to pursue was to sit and wait out the storm, losing precious time. However, by 1948 improvements in technology that had enhanced navigational aids and visual landing aids helped overcome some of the friction caused by the weather.

Distances involved played different roles for each case studied. It was significant in both cases because the distance required to travel influenced response time. It also influenced, to a degree, the amount of credibility of the air threat. In the Far East situation, the distance between the United States and the Philippines was approximately ten thousand miles. This meant it would take a number of days, maybe even weeks, before B-17s could reach the Philippines. The distance between Manila and Japan was approximately two thousand miles. This distance was too far for a round trip mission in the B-17 which was limited to three thousand miles. However, the Japanese had air forces stationed in Formosa, two hundred miles north of the Philippines, a distance their extended range fighters could handle. Distances involved in the Far East may have precluded the U.S. from establishing a credible air threat. In Europe geography was more compact. From the U.S. to Europe the distance was half that required to the Far East. This meant response time was cut in half also. Additionally, from Germany to Moscow the distance is about one thousand miles, putting Moscow well within range of B-29s.

Intelligence was critical in Far East strategy. Shortcomings existed in the Army Air Forces' gathering and analysis of information. This influenced the American understanding of Japanese capabilities and intentions. Poor intelligence also made it impossible for the U.S. to know how the Japanese perceived their military strength.

Without this understanding, the U.S. had no firm estimate of what kind or how many forces it would take to deter the Japanese. This information was critical since the political aim in the Philippines was to convince the Japanese not to take action. It is also clear that American counterintelligence, denying information to the enemy, left a great deal to be desired.

A key to the success of the Berlin airlift was organizational control. Limited airspace, limited time, limited facilities and multiple players required strong organizational control to integrate all aspects of the operation. Sound organizational control produced an efficient and effective airlift.

### **DID AIRPOWER ACCOMPLISH THE OBJECTIVES?**

When the Japanese attacked Pearl Harbor and the Philippines in December 1941, the attempt to use airpower for foreign policy failed. The Japanese were not deterred. In Berlin, airpower successfully served foreign policy. Eleven months after the Soviets imposed a land blockade they lifted it without the Allies consenting to Russian demands.

### **CONCLUSION**

Under what circumstances can airpower be used as an effective tool of foreign policy? The two cases studied suggest that in order for airpower to be successfully employed in foreign policy, there must be a well articulated political goal that military leaders translate into a clear military objective. Once the political leaders and military leaders have completed this definition and translation function, there are several additional requisites. First, a doctrine should exist that creates a conceptual framework for the employment of airpower in the concrete situation. Doctrine provides a starting point for planning and execution. The next requirement is capability. Obviously, without adequate capability, even the most clearly stated mission cannot be accomplished. Finally, planners must make an accurate assessment of the situation. This analysis is

critical to integrating the objectives with the doctrine, capabilities, and the existing conditions such as weather, distance, logistics, enemy capabilities, etc. The result of a complete integration of the above criteria is an operational air plan with a good chance of success. If any of the criteria are not met, this framework suggests that the resulting air plan will have a less than optimal chance of achieving the desired foreign policy goal. This process may be best described as an input/output model:

The feedback arrow indicated above allows for adjustment during the execution

There was a definite U.S. political objective in both the Philippines and in Berlin. However, the clarity with which the political objective was translated into a military objective varied greatly between the two cases. It is much more difficult to translate a negative political aim into an airpower mission than it is to translate a positive goal. In the Philippines, the broad military objective of deterrence and defense were established, but the negative political aim was never transformed into a specific airpower mission. In Berlin, military and political leadership successfully converted the positive political aim into a military objective and subsequent airpower mission.

Once the military objective is determined, it is doctrine that helps convert that objective into an air mission. Prior to World War II, there was doctrine that addressed topics such as ground support of land forces, strategic bombing, and the industrial web theory; but decision makers had practically no doctrinal guidance to employ air assets in a deterrent role. By 1948 political and military leaders could capitalize on two doctrinal

developments. First was the emergence of airlift doctrine from experiences such as the China-Burma-India theater. Second was the developing thought on nuclear deterrence. The United States Strategic Bombing Survey suggests, “The threat of immediate retaliation with a striking [air and missle] force should deter any aggressor from attacking.”<sup>131</sup> In The Absolute Weapon, published in 1946, Bernard Brodie expressed the idea that the new mission of the military was not to win wars, but to deter them.<sup>132</sup> While the question of deterring conventional attack in Europe was different from deterring nuclear attack of the U.S. which Brodie analyzed, the notion of deterrence was still central to the issue. Thus, in 1948 one can conclude that thoughts concerning how to implement deterrent strategies were in the minds of military and political leadership. In essence, in 1941 there was little thought as to how to use airpower in a deterrent role. In 1948, because of the nuclear dimension, the use of airpower for deterrence had received considered thought.

The criterion of capability in 1941 was vastly different than in 1948. New technology, like the B-17, had yet to be proven. Prior to World War II, aircraft, supplies, equipment, and infrastructure were all limited. Post World War II left a legacy of a strong U.S. industrial infrastructure, ample aircraft, supplies, and proven technology. Here again, the situation in 1948 was much more conducive to producing a successful operational air plan than in 1941.

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<sup>131</sup>United State Strategic Bombing Survey, Summary Report (Pacific War) (Washington D.C.: United States Government Printing Office, 1946), 30.

<sup>132</sup>Bernard Brodie, et. al. The Absolute Weapon: Atomic Power and World Order (New York: Harcourt, Brace and Company, 1946), 76. Brodie's full quote says, "Thus far the chief purpose of our military establishment has been to win wars. From now on its chief purpose must be to avert them. It can have no other useful purpose."

A final striking difference between 1941 and 1948 was the situation analysis. This criterion is concerned with understanding the total political and military situation. In 1941, U.S. political and military leadership did not understand the Japanese. These shortcomings were noted in American underestimation of Japanese capabilities, lack of operational intelligence estimates, and a misreading of the significance the Japanese placed on achieving their objectives. There was a much better understanding of the adversary in 1948. U.S. leadership fundamentally understood the Soviet mentality. In a now famous article in the July 1947 issue of *Foreign Affairs*, George Kennan, a senior American diplomat, noted that in diplomacy with the Russians, “. . . it [the USSR] is more sensitive to contrary force, more ready to yield on individual sectors of the diplomatic front when that force is felt to be too strong, and thus more rational in the logic and rhetoric of power.”<sup>133</sup> The validity of this observation lay at the base of Soviet-American relations during the entire Cold War. Clearly, American understanding of its adversary was much better in 1948 than it was in 1941. This greatly aided the development of a coherent operational concept.

### **IMPLICATIONS**

The conclusions of this study lead to two significant implications. First is the importance of developing an operational air plan within the context of a political goal, military objectives, doctrine, force capabilities, and strategic assessments. The proper integration of these elements increases the likelihood of an air plan that will accomplish the goals of foreign policy. Second is the concept of an Air Force in-being which can be responsive and effective when called upon to assist in foreign policy issues. These

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<sup>133</sup>X, "The Sources of Soviet Conduct," *Foreign Affairs* 25, no. 4 (July 1947) : 575. George Kennan later claimed authorship of this article in a footnote of his book *American Diplomacy: 1900-1950* (New York: New American Library, 1951), 89.

implications are not strictly limited to the use in foreign policy, but are suggestive in developing concepts of air operation for other applications as well.

### MODEL

Each component of the above referenced model is necessary; and, taken together, they are sufficient for developing a sound air plan. An understanding of the political objective by the military planners is of prime importance. This suggests that military planners and decision makers should be educated in the national application of aerospace power. Such an education will encourage military leaders to develop their own views about the political effectiveness of military strategies, an important ingredient to the model. The need to evaluate competing alternatives for the use of air assets to further foreign policy goals is a key ingredient of this education. For the past 40 years, these debates and alternatives have focused on nuclear strategies. It is time to enlarge that focus to include conventional operations as well. There must also be a forum in which political leaders are familiarized with military procedures and capabilities. As many of our political leaders today have no military background, such a forum may be pivotal in cultivating the close relationship needed between political and military leaders to ensure complete and correct communication of objectives.

Clearly, the two cases presented in this paper highlight the importance of having a doctrine from which to begin operational planning. The Berlin case suggests that having a doctrine is the foundation upon which to build and provide direction for an air plan. It also saves valuable time, which in turn may buy the even more critical time needed to conduct foreign policy or build up forces if confrontation is imminent. Keeping in mind the dynamic nature of the military environment, airpower doctrine should be developed that reflects a balance of current influencing factors. In the late 1940's, the chief influencing factor was the new existence of nuclear weapons, which spawned intensive

discussions of nuclear doctrine. There was little balance however, as airpower doctrine for the employment of conventional weapons was all but ignored. Today we must avoid the same mistake if we are to have successful air plans for our dynamic environment. Doctrine should not focus solely on the conventional use of force. Doctrine must also address the use of airpower as a tool of diplomacy.

Of course, even the most well developed and balanced doctrine is of little value without the capability to execute it. This suggests the question, “What constitutes airpower capabilities?” The answer is not always ‘bombs and bullets’. It may be airlift, it may be satellite capability, or it may be a nonlethal application of airpower. As technology advances, our capabilities broaden and so must our thoughts on the use of airpower. Developing a wide range of aerospace capabilities is central to the use of airpower as a diplomatic tool.

Finally, this paper has shown that a cogent and comprehensive situation analysis is a necessary condition for the successful use of airpower as an instrument of foreign policy. This analysis determines what action will have the highest likelihood of success in light of a host of complex situation-specific relationships. In order to obtain such an analysis, we need military members who are educated in strategic assessment; can synthesize material from subject matter experts; and can integrate political, social, and cultural understanding with their military expertise. This implies that air leaders of today and tomorrow cannot be the product of a stovepipe institution that focuses simply on the narrow employment of their specialties. We live in a global environment in which traditional institutional boundaries are becoming fuzzy. In order to get the best situation analysis, our focus must venture outside these boundaries.

## **AIR FORCE-IN-BEING**

Since today America is in a period of military and fiscal retrenchment, a final focus on air force capabilities is appropriate. One way to keep our Air Force in a position of strength, despite the force structure drawdowns and weakening of our industrial base, is to pursue the theory of an Air Force-in-being.<sup>134</sup>

Given that political leaders have determined that airpower may be useful in achieving a political objective, it is the responsibility of the air planner to determine how to do this with the capability available. The objective of an Air Force-in-being is to have airpower, as an extension of foreign policy, prevent an adversary from securing positive political goals inimical to the vital interests of the U.S. The term, “Air Force-in-being” does not imply simply keeping the Air Force in existence; it implies an Air Force that vigorously pursues positive activity. For foreign policy issues this means continual deployment and concentration of air forces in highly visible areas around the globe, much as naval fleets were deployed in the nineteenth century to “show the flag”. Indeed, airpower is never more operative for foreign policy matters than when it is perceived to exist, but is not brandished. An Air Force-in-being, while defensive in nature, espouses an opportunistic spirit.

This spirit leads to a second point: denying a belligerent control of an area he regards necessary to pursue his political objective. Using aerospace assets defensively and seizing every opportunity for a counterstroke can prevent an adversary from achieving the command of the area it desires. Examples of such activity are: 1)

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<sup>134</sup>The discussion that follows concerning an Air Force-in-being parallels in many way Julian Corbett's discussion of a fleet in-being in Some Principles of Maritime Strategy (Annapolis, Maryland: Naval Institute Press, 1988), pp.209-232.

disputing an enemy's control of a certain area with the use of harassing operations, 2) exercising control of an area that the enemy values at any moment we see the chance, and 3) preventing the enemy from exercising control over his objective by continually occupying his attention. Avoiding direct conflict is a key goal of these activities since we want to avoid war and will always seek to achieve our foreign policy objectives at the lowest possible cost.

Finally, the recognition by the belligerent of an Air Force-in-being may prevent him from acting, knowing there will be risk and hazard involved if he does. If nothing else, the Air Force in-being may force the adversary to maintain a continual guard, which would draw on resources he might otherwise use in direct pursuit of his objectives.

This study concludes that for airpower to be an effective tool of foreign policy, air planners must first translate a foreign policy goal into a military objective. There should be doctrine to guide the plan, capability to implement the plan, and a broad situation analysis of the environment in which the plan will be executed. If all these criteria are met, experience of the Berlin blockade suggests that airpower can be an effective tool of foreign policy. Where these conditions are not met, the Philippine experience points to the likelihood of failure. The study also suggests that the U.S. can exploit its aerospace dominance in the 21st century much as Great Britain employed its naval dominance in the 18th and 19th centuries. The "Air Force-in-Being" is a conceptual device that should be actively employed by our national leadership and our senior air planners to achieve maximum value from our extant aerospace capabilities.

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